Chromalox®

Installation
and
RENEWAL PARTS IDENTIFICATION

Type LUH
Horizontal Unit Heater

SERVICE REFERENCE	
DIVISION 4	SECTION LUH
SALES REFERENCE (Supersedes PF479-5)	PF479-6
	161-303474-001
DATE JANUARY, 2003	



Specifications — Table 1

Model	Electrical Data (60 Hz)					Dimensions (In.)			Standard Contactor Rating (Qty.)
	Volts	Watts	Phase	Amps	BTU	Height	Width	Depth	
LUH-D-02-81	208	2,667	1	12.8	8,850	16	13-1/8	8-7/8	30A (1)
LUH-D-02-21	208/240	2,000/2,667	1	11.1 *					30A (1)
LUH-D-02-71	277	2,667	1	9.6					30A (1)
LUH-D-04-81 †	208	4,000	1	19.2	13,661	16	13-1/8	8-7/8	30A (1)
LUH-D-04-83 †			3	11.2					30A (1)
LUH-D-04-21 †	208/240	3,000/4,000	1	16.7 *					30A (1)
LUH-D-04-23 †			3	9.6 *					30A (1)
LUH-D-04-71	277	4,000	1	14.5					30A (1)
LUH-D-04-43	480	4,000	3	4.8					30A (1)
LUH-D-05-81 †	208	5,000	1	24.0	17,076	16	13-1/8	8-7/8	30A (1)
LUH-D-05-83 †			3	13.8					30A (1)
LUH-D-05-21 †	208/240	3,750/5,000	1	20.8 *					30A (1)
LUH-D-05-23 †			3	12.1 *					30A (1)
LUH-D-05-71	277	5,000	1	18.2					30A (1)
LUH-D-05-43	480	5,000	3	6.0					30A (1)
LUH-D-07-81 †	208	7,500	1	36.1	25,598	20-1/2	17-1/4	11-1/2	50A (1)
LUH-D-07-83			3	20.9					30A (1)
LUH-D-07-21 †	208/240	5,625/7,500	1	31.1 *					30A (1)
LUH-D-07-23			3	18.1 *					30A (1)
LUH-D-07-71	277	7,500	1	27.2					30A (1)
LUH-D-07-43	480	7,500	3	9.0					30A (1)
LUH-D-10-81 †	208	10,000	1	48.0	34,130	20-1/2	17-1/4	11-1/2	50A (1)
LUH-D-10-83			3	27.8					30A (1)
LUH-D-10-21 †	208/240	7,500/10,000	1	41.7 *					30A (1)
LUH-D-10-23			3	24.0 *					30A (1)
LUH-D-10-43	480	10,000	3	12.0					30A (1)
LUH-D-12-83	208	12,500	3	34.8	42,663	20-1/2	17-1/4	11-1/2	50A (1)
LUH-D-12-23	208/240	9,375/12,500	3	30.1 *					50A (1)
LUH-D-12-43	480	12,500	3	15.1					30A (1)
LUH-D-15-83	208	15,000	3	41.8	51,195	20-1/2	17-1/4	11-1/2	50A (1)
LUH-D-15-23	208/240	11,250/15,000	3	36.2 *					50A (1)
LUH-D-15-43	480	15,000	3	18.1					30A (1)
LUH-D-20-23	208/240	15,000/20,000	3	48.0 *	68,460	24	20-1/8	11-1/2	50A (1)
LUH-D-20-43	480	20,000	3	24.0					30A (1)
LUH-D-25-43	480	25,000	3	30.0	85,525	24	20-1/8	11-1/2	50A (1)
LUH-D-30-83	208	30,000	3	83.4	102,390	24	20-1/8	17-1/4	50A (2)
LUH-D-30-23	208/240	22,500/30,000	3	72.2 *					50A (2)
LUH-D-30-43	480	30,000	3	36.1					30A (2)
LUH-D-35-23	208/240	26,250/35,000	3	84.3 *	119,455	24	20-1/8	17-1/4	50A (2)
LUH-D-35-43	480	35,000	3	42.1					30A (2)
LUH-D-40-23	208/240	30,000/40,000	3	96.0 *	136,520	24	20-1/8	17-1/4	50A (2)
LUH-D-40-43	480	40,000	3	48.0					30A (2)
LUH-D-45-43	480	45,000	3	54.1	153,585	24	20-1/.8	17-1/4	30A (2)

***Note:** 208V amperage is 86% of 240V value.

† These models can be field changed from single phase to three phase or three phase to single phase.

IMPORTANT

Failure to understand and follow these installation instructions and the "WARNING" notes therein may result in serious personal injury from electrical shock, or from the heater failing due to faulty installation.

⚠WARNING

FIRE/EXPLOSION HAZARD. This heater is not intended for use in hazardous atmospheres where flammable vapors, gases, liquids or other combustible atmospheres are present as defined in the National Electrical Code. Failure to comply can result in personal injury, explosion or fire. For these applications see PDS CXH-A-EP (PF490).

⚠WARNING

Users should install adequate back-up controls and safety devices with their electric heating equipment. Where the consequenses of failure may be severe, back-up controls are essential.

Do not mount mercury type thermostat directly on unit. Vibration could cause heater to malfunction.

The heater must be mounted at least 7' above the floor to prevent accidental contact with the heating elements or fan blade which could cause injury.

Keep at least 5' clearance in front of the heater. Refer to Table 2 for side, top and back clearance requirements.

The ceiling mounting structure and the anchoring provisions must be of sufficient strength to support the combined weight of the heater and mounting bracket. (Refer to Table 3 for weights of heater and bracket.)

The wall or mounting surface, and the anchoring provisions must be capable of supporting the combined weight of the heater and mounting brackets cantilevered from the mounting surface. (Refer to Table 3 for weights of heater and brackets and for cantilevered force expressed in foot-pounds.)

Fan blade rotation must be checked. If airflow is not moving out through the louvers, interchange any two of the three customer power leads on three-phase units only.

GENERAL

Heater Location Instructions:

Arrange units so their discharge air streams:

A. are subjected to a minimum of interference from columns, machinery and partitions.
B. wipe exposed walls without blowing directly at them.
C. are directed away from room occupants in comfort heating.
D. are directed along the windward side when installed in a building exposed to a prevailing wind.

Locate thermostat on interior partition walls or posts away from cold drafts, internal heat sources and away from heater discharge air streams.

Small rooms can be heated by one unit heater. Where two walls are exposed, the heater should be mounted as shown in Figure 1.

Large rooms require multi-unit installation. Number and capacity of units will be determined by volume of building and square feet of floor area to be heated. Arrange units to provide perimeter air circulation where each unit supports the air stream from another.

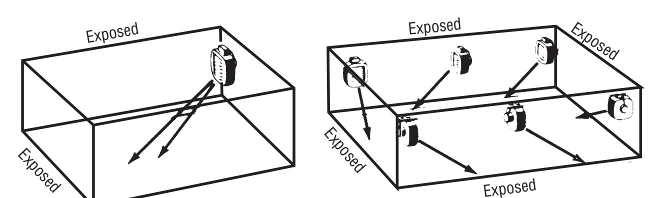


Figure 1

INSTALLATION

⚠WARNING

Please read all of the following instructions: Failure to observe these precautions could result in personal injury or equipment damage.

1. The heater must be mounted at least 7' above the floor to prevent accidental contact with the heating elements or fan blade which could cause injury.
2. Keep at least 5' clearance in front of heater. Refer to Table 2 for side, top and back clearance requirements.

Clearance Requirements — Table 2

Basic Model	Mounting Limitations (In.)		
	Back to Wall	Side to Wall	Top to Ceiling
LUH-02 through LUH-05	6	6	4
LUH-07 through LUH-15	6	6	6
LUH-20 and LUH-25	6	6	6
LUH-30 through LUH-45	6	6	6

3. The ceiling mounting structure and the anchoring provisions must be sufficient to support the combined weight of the heater and mounting bracket. (Refer to Table 3 for weights of heater and bracket.)
4. The wall or mounting surface and the anchoring provisions must be capable of supporting the combined weight of the heater and mounting brackets cantilevered from the mounting surface. (Refer to Table 3 for weights of heater and brackets and for cantilevered force expressed in foot-pounds.)

The heater may be mounted either on the ceiling or on the wall as follows:

A. CEILING. The ceiling mounting bracket is fastened to the top of the heater using the four bolts supplied with the mounting bracket. The bracket is then mounted to the ceiling using a 5/8" bolt (supplied by others).

CEILING (Alternate)

1. The heater can be rod mounted to the ceiling by installing four threaded mounting rods in the threaded holes located on the top of the heater as shown in Figure 2. (Refer to Table 4 for mounting rod thread size.)
2. Securely attach the four mounting rods to the ceiling. (Refer to Table 2 for wall and ceiling clearances, and Figure 3 for mounting spacing specifications).

B. WALL. Wall mounting kits include both a ceiling mounting bracket and a wall mounting bracket. First, attach the ceiling mounting bracket to the heater as described in step 4A. Then attach the wall mounting bracket to the wall using four 3/8" bolts (supplied by others). Attach the ceiling mounting bracket on the heater to the wall mounting bracket using the 5/8" bolt provided.

The heater may be rotated to discharge in the desired direction. Open and adjust louvers to desired position. See Figure 4 and 5 for additional mounting details.

Heater & Bracket Weights Combined — Table 3

Heater Model	Weight (Lbs.) Heater and Brackets		
	Ceiling	Wall	
	Weight	Weight	Ft./Lbs.
LUH-02 through LUH-05	33-3/4	38-1/4	48
LUH-07 through LUH-15	55	67-1/4	112
LUH-20 through LUH-25	78	90-1/4	150
LUH-30 through LUH-45	117	141-1/4	400

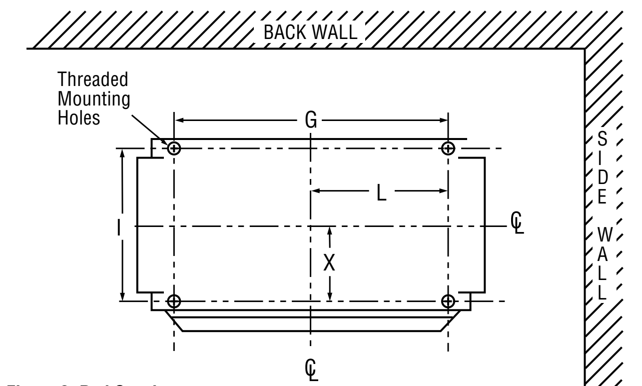


Figure 2 Rod Spacing

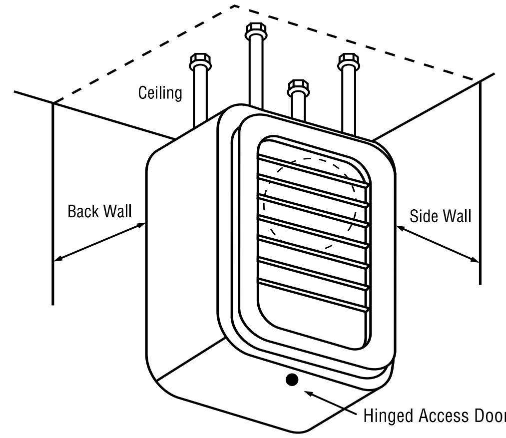


Figure 3 Wall and Ceiling Clearance (Table 2)

Table 4 — Rod Thread Type and Spacing Dimensions (In.) for Horizontal Discharge

Unit	Rod Thread Type	Dimensions (In.)			
		I	G	L	X
2 - 5kW	5/16 - 18	4-1/2	5-1/2	2-3/4	2-1/4
7-1/2 - 15kW	3/8 - 16	6-1/4	8-1/4	4-1/8	3-1/8
20 - 25kW	3/8 - 16	6-1/4	8-1/4	4-1/8	3-1/8
30 - 45kW	3/8 - 16	11-3/4	8-1/4	4-1/8	5-7/8

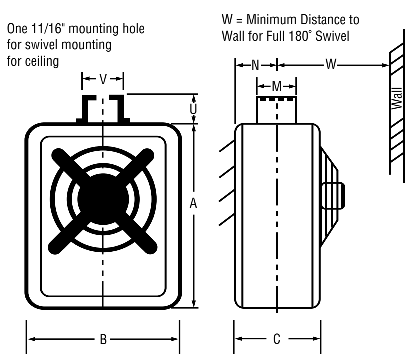


Figure 4
Optional Ceiling Swivel Mounting Bracket

Bracket Model No.	Dimensions (In.)								Wt. (Lbs.)	Use With
	A	B	C	M	N	U	V	W		
WUH-04A	16	13-1/8	8-7/8	6	4-7/16	4	4-1/2	10-1/2	3	LUH-02 04, 05
WUH-05	20-1/2	17-1/4	11-1/2	8	6-1/4	6	7-1/4	16	5-1/2	LUH-07 10, 12, 15
WUH-05	24	20-1/8	11-1/2	8	6-1/4	6	7-1/4	16	5-1/2	LUH-20, 25
WUH-06	24	20-1/8	17	13-3/4	10	6	7-1/4	21	11	LUH-30 35, 40, 45

Note: Wall mounting hardware to be supplied by customer.

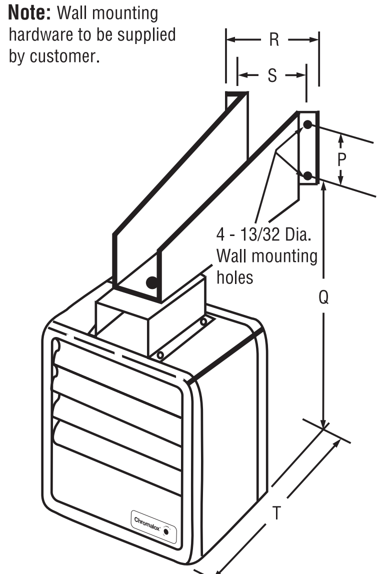


Figure 5
Optional Wall Swivel Mounting Bracket

Bracket Model Number	Dimensions - (In.)					Bracket Weight (Lbs.)	Use With
	P	Q	R	S	T		
WUH-01A	1-3/4	21-1/2	6-3/4	5-1/2	14-15/16	4-1/2	LUH-02 04, 05
WUH-02	2	28-7/16	9-1/2	8-3/8	22-1/4	12-1/4	LUH-07 10, 12, 15
WUH-02	2	28-7/16	9-1/2	8-3/8	22-1/4	12-1/4	LUH-20, 25
WUH-03	5-1/2	28-11/16	5	3-1/2	33-1/4	24-1/4	LUH-30, 35, 40, 45

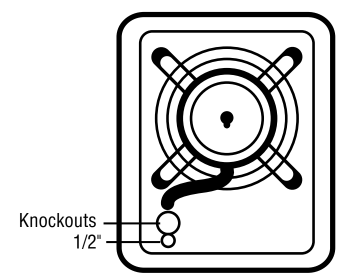


Figure 6
Heater Back View

Knockout Sizes	
LUH-02 - LUH-05	3/4" (1)
LUH-07 - LUH-15	1" (1)
LUH-20 - LUH-25	3/4", 1", 1-1/4"(1)
LUH-30 - LUH-45	3/4", 1", 1-1/4"(1)

WIRING

⚠WARNING

ELECTRIC SHOCK HAZARD. Disconnect all power before installing or servicing heater. Failure to do so could result in personal injury or property damage. Heater must be installed by a qualified person in accordance with the National Electrical Code, NFPA 70.

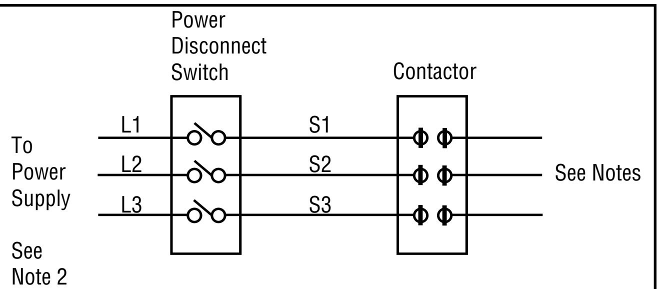
⚠WARNING

ELECTRIC SHOCK HAZARD. Any installation involving electric heaters must be performed by a qualified person and must be effectively grounded in accordance with the National Electrical Code to eliminate shock hazard.

1. Use heater only on the voltage and frequency specified on the nameplate.
2. All wiring should be done in accordance with local codes and the National Electrical Code by a qualified person as defined in the NEC.
3. Two knockouts are provided on the back of the heater for wire entry. See Figure 6 for location of knockouts.
4. Branch circuit wire for connection to heater must be at least 60°C wire.
5. The bottom access door is hinged. There is one screw that must be loosened to gain access (Figure 3). This screw is the captive type; do not try to remove it.
6. A ground terminal is provided near the power terminal board. The ground wire should be connected before other connections are made.
7. Stripped wire leads are supplied to be connected to accept the correct size power supply wire. Copper wire rated at 600V and 60°C is satisfactory for the heater branch circuit.
8. Electrical accessories, either kits or factory-installed options, are shown connected by a dash line on the heater wiring diagram.
9. Wiring connections are to be made on designated wire leads as shown in the wiring diagrams located inside the access door.

POWER DISCONNECT SWITCH (Available as a kit or factory installed option.) This switch (Figure 7) disconnects the power to the power leads when the handle is placed in its off position.

1. Use copper conductor supply wire only when connecting to the power line.
2. Connection to the switch pigtails should be made with compression connectors and the joint should be then well insulated.



Notes:

1. This illustration shows wiring hook up for three phase service. Remove lead wires marked L2 and S2 when using single phase power service.
2. For units without contactors, disconnect switch is to be wired to lead wires on heater power.
3. Use copper supply wire only with this switch.

Figure 7
Power Disconnect Switch Wiring Diagram

3. Consult the local wiring code in your area.

SUMMER FAN SWITCH (MOUNTED ON FRONT OF HEATER). When the switch handle is pointing toward the "SUMMER" position, the fan will run continuously. When the switch handle is pointing toward the "WINTER" position, the fan will run only when the heating elements are hot.

REMOTE FAN SWITCH (MANUAL SWITCH-LINE VOLTAGE). 480V requires an additional relay. The wall switch is packed in the wiring compartment.

The remote fan switch is mounted external and remote from the LUH unit heater. The voltage of the remote fan switch is the same as the supply voltage to the LUH heater.

1. Use 14 gauge copper, NEC Class 1, 600V rated insulated wire. Wiring must meet all Local and NEC requirements for 480V service.
2. Install the remote fan switch in standard wall box in any convenient location that is protected from traffic or other accidental damage.
3. Connect the 14 gauge copper field wire to the switch lead wires with suitable connectors.

REMOTE FAN SWITCH (USED WITH 24 or 120-VOLT RELAY) (Available as a kit or factory installed option). The wall switch is packed in the wiring compartment.

1. Use 18 gauge (min.) NEC Class 1, 600V wiring that meets all Local and NEC requirements.
2. Install the wall switch in a standard wall box in any convenient location that is protected from traffic or other accidental damage.
3. Connect the field wire to the switch lead wires with suitable connectors.



Figure 8 — Thermostat Location, Front View

OPTIONAL THERMOSTAT (LUH-TK)

Heaters can be equipped with an optional thermostat of the Bulb and Capillary type for automatic temperature control (Figure 8). The thermostat controls the heating elements and fan simultaneously to achieve set temperature.

The "Lo" setting of the thermostat is approximately 40°F, and the "Hi" setting is approximately 90°F.

CONTROL VOLTAGE WIRING - EXTERNAL REMOTE THERMOSTATS AND FAN SWITCHES

⚠WARNING

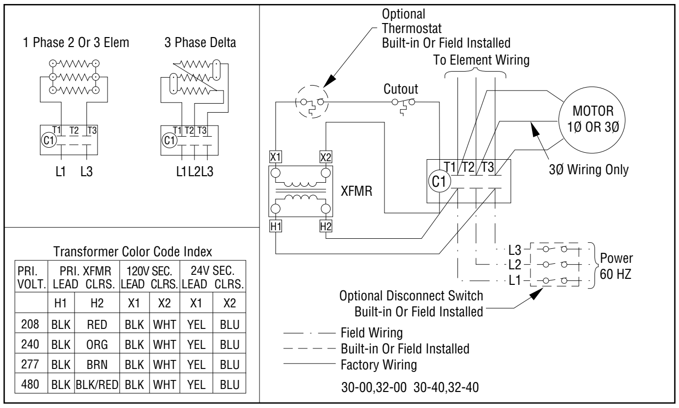
ELECTRIC SHOCK HAZARD. Line voltage is present on some of the terminals. Always disconnect the power from the heater before making any connections.

1. Use 600V, NEC Class 1 insulated wiring with a minimum gauge of 18 for thermostats and a minimum gauge of 14 for line voltage motor switch (remote fan switch without relay).
2. The thermostat should be located in the area to be heated on an inside wall. The thermostat should not be exposed to drafts, sunlight, radiation from hot objects, or in a direct line with the discharge from the unit heater.
3. Install the thermostat approximately 5 feet above the floor line.
4. Install the remote fan switch in any convenient location that is protected from traffic or likely accidental damage.
5. Internal optional controls are shown on the unit heater wiring diagrams by a dash line.

Use wiring diagrams as listed for model number on (A through X), pages 5, 6 and 9.

For installation and optional control kits, refer to instruction sheets listed on page 8.

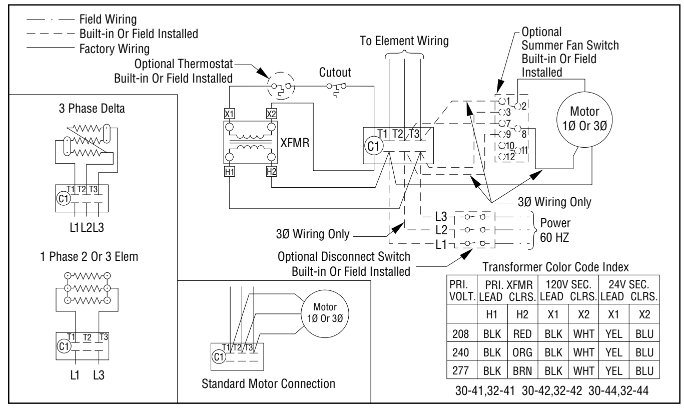
WIRING DIAGRAMS



Transformer Color Code Index

PRI. VOLT.	PRI. XFMR LEAD	CLRS.	120V SEC. LEAD	CLRS.	24V SEC. LEAD	CLRS.
	H1	H2	X1	X2	X1	X2
208	BLK	RED	BLK	WHT	YEL	BLU
240	BLK	ORG	BLK	WHT	YEL	BLU
277	BLK	BRN	BLK	WHT	YEL	BLU
480	BLK	BLK/RED	BLK	WHT	YEL	BLU

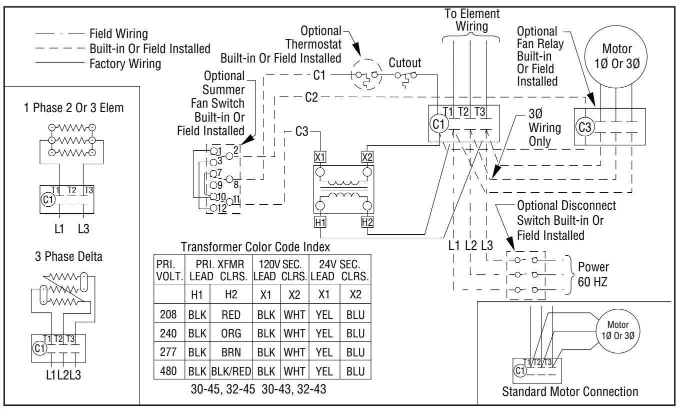
Figure A



Transformer Color Code Index

PRI. VOLT.	PRI. XFMR LEAD	CLRS.	120V SEC. LEAD	CLRS.	24V SEC. LEAD	CLRS.
	H1	H2	X1	X2	X1	X2
208	BLK	RED	BLK	WHT	YEL	BLU
240	BLK	ORG	BLK	WHT	YEL	BLU
277	BLK	BRN	BLK	WHT	YEL	BLU

Figure B



Transformer Color Code Index

PRI. VOLT.	PRI. XFMR LEAD	CLRS.	120V SEC. LEAD	CLRS.	24V SEC. LEAD	CLRS.
	H1	H2	X1	X2	X1	X2
208	BLK	RED	BLK	WHT	YEL	BLU
240	BLK	ORG	BLK	WHT	YEL	BLU
277	BLK	BRN	BLK	WHT	YEL	BLU
480	BLK	BLK/RED	BLK	WHT	YEL	BLU

Figure C

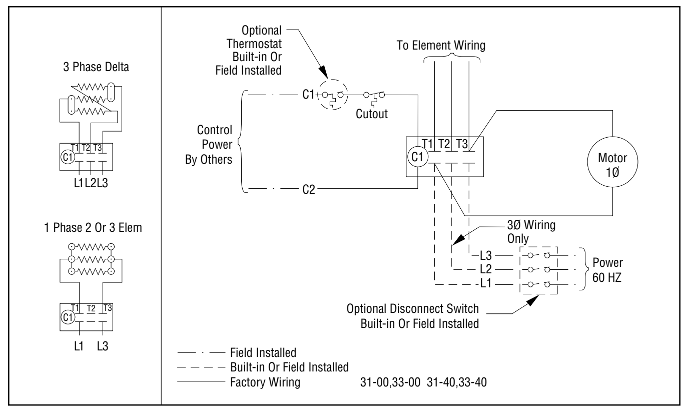


Figure D

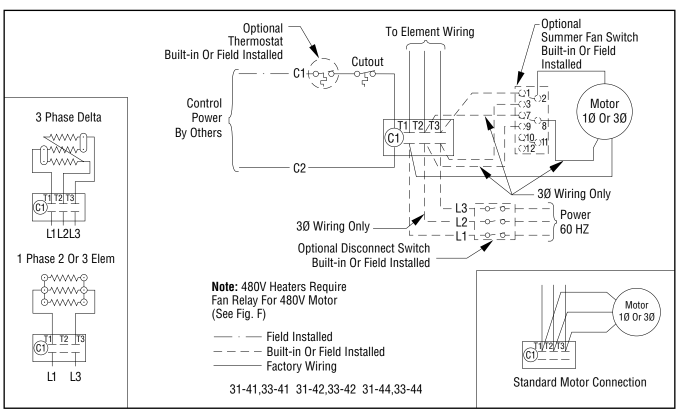


Figure E

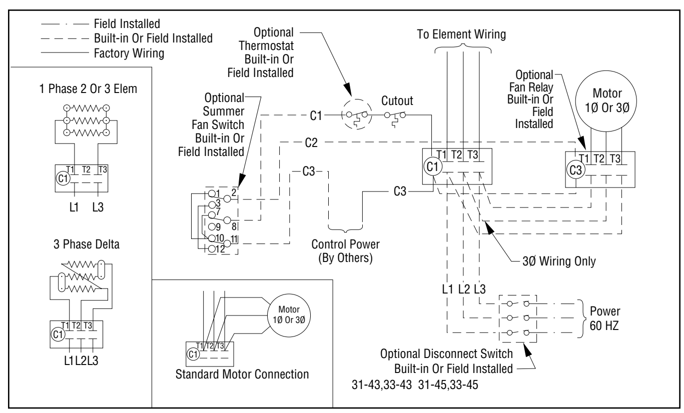


Figure F

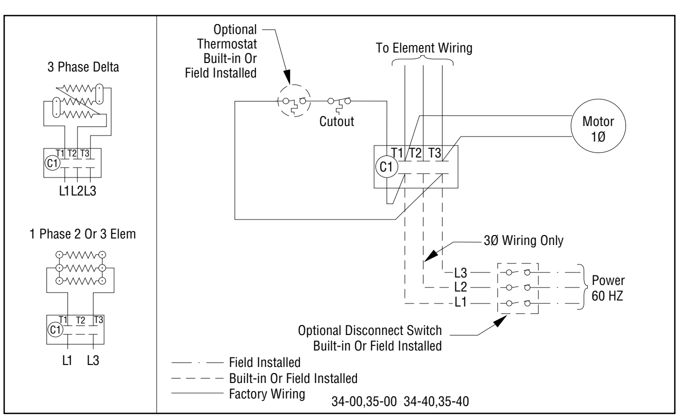


Figure G

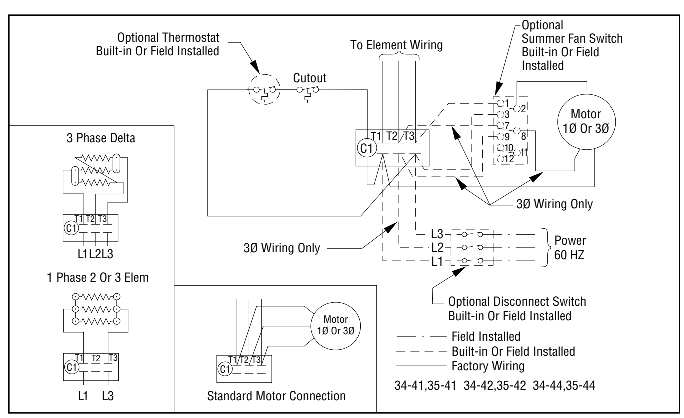


Figure H

WIRING DIAGRAMS

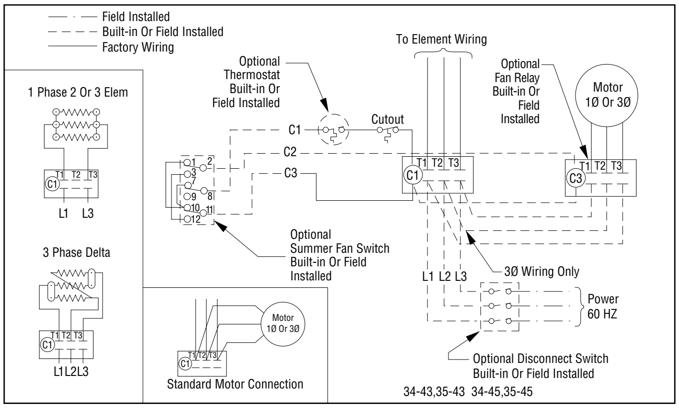
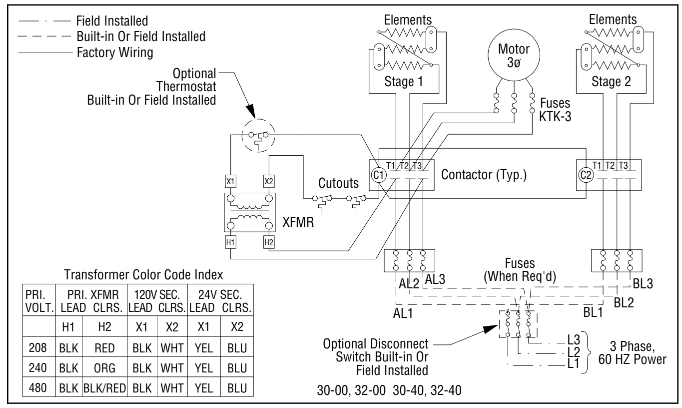
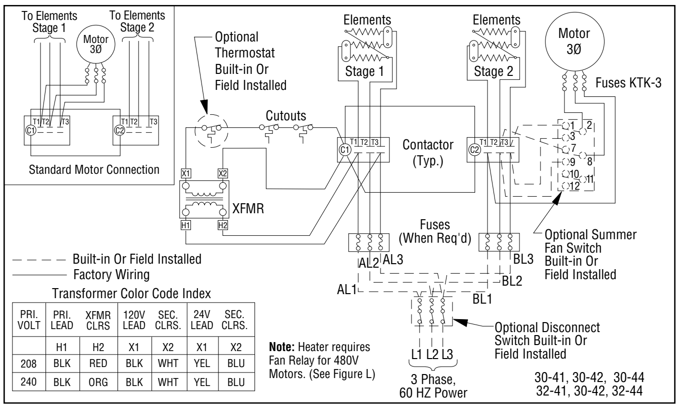


Figure I



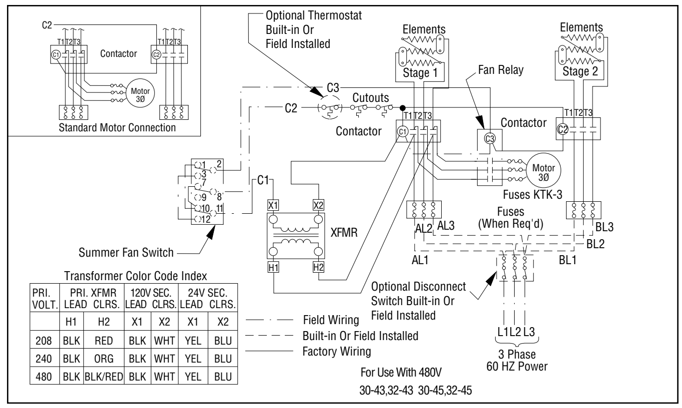
PRI. VOLT.	PRI. XFMR LEAD	CLRS.	120V SEC. LEAD	CLRS.	24V SEC. LEAD	CLRS.
	H1	H2	X1	X2	X1	X2
208	BLK	RED	BLK	WHT	YEL	BLU
240	BLK	ORG	BLK	WHT	YEL	BLU
480	BLK	BLK/RED	BLK	WHT	YEL	BLU

Figure J



PRI. VOLT	PRI. LEAD	XFMR CLRS	120V LEAD	SEC. CLRS.	24V LEAD	SEC. CLRS.
	H1	H2	X1	X2	X1	X2
208	BLK	RED	BLK	WHT	YEL	BLU
240	BLK	ORG	BLK	WHT	YEL	BLU

Figure K



PRI. VOLT.	PRI. XFMR LEAD	CLRS.	120V SEC. LEAD	CLRS.	24V SEC. LEAD	CLRS.
	H1	H2	X1	X2	X1	X2
208	BLK	RED	BLK	WHT	YEL	BLU
240	BLK	ORG	BLK	WHT	YEL	BLU
480	BLK	BLK/RED	BLK	WHT	YEL	BLU

Figure L

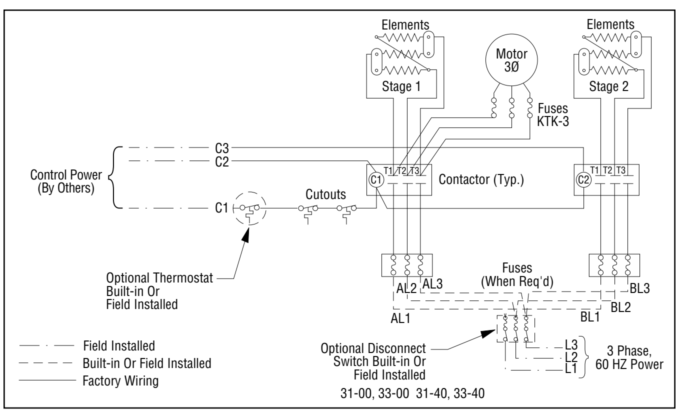


Figure M

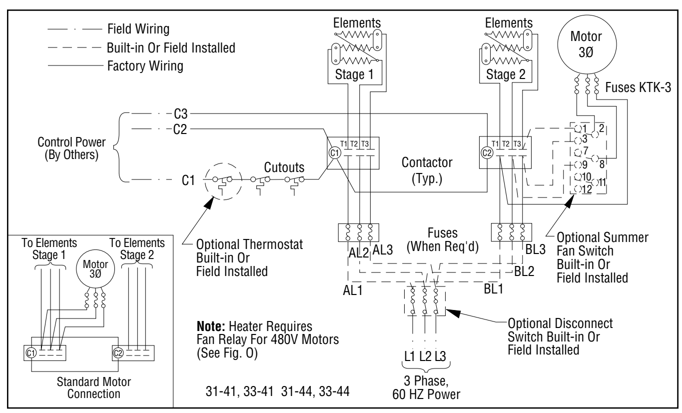


Figure N

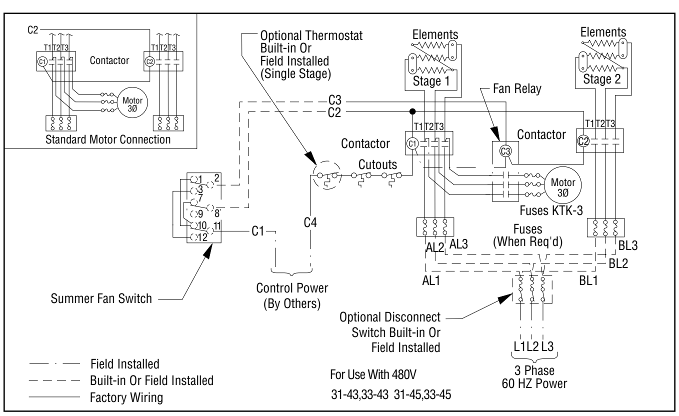


Figure O

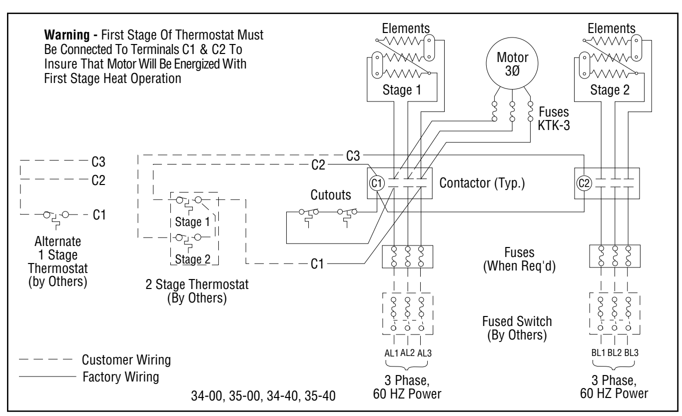


Figure P

RENEWAL PARTS IDENTIFICATION

MANUFACTURER PART NUMBER BREAKDOWN

FOR MADE TO ORDER UNITS

(LOCATED ON UNIT NAMEPLATE)

L U H - D - ☐ ☐ - ☐ ☐ - ☐ ☐ - ☐ ☐ - ☐

Code	kW	Volts	Phase	Element Part No.	Motor Part No.	Fan Part No.
02-81	2.67	208	1	118-303160-001 (2)	193-302912-001	112-302997-001
02-21	2.67	208/240	1	118-303160-002 (2)	193-302912-001	112-302997-001
02-71	2.67	277	1	118-303160-003 (2)	193-302120-001	112-130367-001
04-81	4	208	1	118-303160-001 (3)	193-302912-001	112-302997-001
04-83	4	208	3	118-303160-001 (3)	193-302912-001	112-302997-001
04-21	3/4	208/240	1	118-303160-002 (3)	193-302912-001	112-302997-001
04-23	3/4	208/240	3	118-303160-002 (3)	193-302912-001	112-302997-001
04-71	4	277	1	118-303160-003 (3)	193-302120-001	112-130367-001
04-43	4	480	3	118-303160-004 (3)	193-302912-003	112-302997-001
05-81	5	208	1	118-303160-005 (3)	193-302912-001	112-302997-001
05-83	5	208	3	118-303160-005 (3)	193-302912-001	112-302997-001
05-21	3.75/5	208/240	1	118-303160-006 (3)	193-302912-001	112-302997-001
05-23	3.75/5	208/240	3	118-303160-006 (3)	193-302912-001	112-302997-001
05-71	5	277	1	118-303160-007 (3)	193-302120-001	112-130367-001
05-43	5	480	3	118-303160-008 (3)	193-302912-003	112-302997-001
07-81	7.5	208	1	118-303170-005 (3)	193-302912-004	112-130367-007
07-83	7.5	208	3	118-303170-005 (3)	193-302912-004	112-130367-007
07-21	5.6/7.5	208/240	1	118-303170-001 (3)	193-302912-004	112-130367-007
07-23	5.6/7.5	208/240	3	118-303170-001 (3)	193-302912-004	112-130367-007
07-71	7.5	277	1	118-303170-006 (3)	193-302120-004	112-130367-007
07-43	7.5	480	3	118-303170-004 (3)	193-302912-005	112-130367-007
10-81	10	208	1	118-303169-001 (3)	193-302912-004	112-130367-002
10-83	10	208	3	118-303169-001 (3)	193-302912-004	112-130367-002
10-21	7.5/10	208/240	1	118-303169-002 (3)	193-302912-004	112-130367-002
10-23	7.5/10	208/240	3	118-303169-002 (3)	193-302912-004	112-130367-002
10-43	10	480	3	118-303169-003 (3)	193-302912-005	112-130367-002
12-83	12.5	208	3	118-303169-004 (3)	193-302912-004	112-130367-002
12-23	9.4/12.5	208/240	3	118-303169-005 (3)	193-302912-004	112-130367-002
12-43	12.5	480	3	118-303169-006 (3)	193-302912-005	112-130367-002
15-83	15	208	3	118-303169-007 (3)	193-302912-004	112-130367-002
15-23	11.2/15	208/240	3	118-303169-008 (3)	193-302912-004	112-130367-002
15-43	15	480	3	118-303169-009 (3)	193-302912-005	112-130367-002
20-23	15/20	208/240	3	118-130419-010 (3)	193-302120-005	112-130367-003
20-43	20	480	3	118-130419-011 (3)	193-302120-005	112-130367-003
25-43	25	480	3	118-130419-012 (3)	193-302120-005	112-130367-003
30-83	30	208	3	118-130384-013 (6)	193-302120-005	112-130367-004
30-23	22.5/30	208/240	3	118-130384-014 (6)	193-302120-005	112-130367-004
30-43	30	480	3	118-130384-015 (6)	193-302120-005	112-130367-004
35-23	26.2/35	208/240	3	118-130384-021 (6)	193-302120-005	112-130367-004
35-43	35	480	3	118-130384-016 (6)	193-302120-005	112-130367-004
40-23	30/40	208/240	3	118-130384-022 (6)	193-302120-005	112-130367-004
40-43	40	480	3	118-130384-017 (6)	193-302120-005	112-130367-004
45-43	45	480	3	118-130384-018 (6)	193-302120-005	112-130367-004

	Part Number			
Description	2-5kW	7.5-15kW	20-25kW	30-45kW
Louver	182-130329-001 (4)	182-130329-002 (5)	182-130329-003 (6)	182-130329-003 (6)
Louver spring	276-130368-001 (4)	276-130368-001 (5)	276-130368-001 (6)	276-130368-001 (6)
Cut-Out	300-049200-001	300-049200-001	300-049200-001	300-049200-001
Case Front	043-130336-014	043-130335-011	043-130334-008	043-130334-008
Case Back	043-130379-028	043-130379-031	043-130379-033	043-130379-033
Case Wrapper W/O Fuse Door	043-130314-005	043-130315-004	043-130316-004	043-130317-004
Case Wrapper With Fuse Door				043-130317-005

Power Fuses (Used when heater exceeds 48 Amps)

Code	Description	Part No.
45-53	Fuse Block 600V	129-025643-001 (2)
"30-83, 30-23, 35-23, 40-23"	Fuse Block 250V	129-048473-001
"30-83, 35-23, 40-23"	Fuse 60 Amp	128-026510-007 (6)
30-23	Fuse 50 Amp	128-026510-006 (6)
45-43	Fuse 35 Amp	128-026510-001 (6)

For Contactor Rating, refer to Specification Table shown on Page 1.

Code	Description	Heater Line Volts	Part No.	Wiring Figure
00-40	Thermostat DP	All	300-049197-004	
30-00	Contactor (24 V) 30A	All	072-303180-001	A, J, S
	Contactor (24 V) 50A	All	072-303180-002	
	Transformer	All	315-304252-002	
30-40	Contactor (24 V) 30A	All	072-303180-001	A, J
	Contactor (24 V) 50A	All	072-303180-002	
	Transformer	All	315-304252-002	
	Thermostat SP	All	300-049197-003	
30-41	Contactor (24V) 30A	All	072-303180-001	B, K
	Contactor (24V) 50A	All	072-303180-002	
	Transformer	All	315-304252-002	
	Thermostat SP	All	300-049197-003	
	Fan Switch 3PDT	All	292-057673-001	
30-42	Contactor (24V) 30A	All	072-303180-001	B, K
	Contactor(24V) 50A	All	072-303180-002	
	Transformer	All	315-304252-002	
	Remote Fan Switch 3PDT	All	292-057673-001	
30-43	Contactor (24V) 30A	All	072-303180-001	C, L, T
	Contactor (24V) 50A	All	072-303180-002	
	Transformer	All	315-304252-002	
	Fan Relay	2.6-5kW	072-303180-011	
	Fan Relay	7.5-45kW	072-303180-001	
	Remote Fan Switch 3PDT	All	292-057673-001	
30-44	Contactor (24V) 30A	All	072-303180-001	B, K
	Contactor (24V) 50A	All	072-303180-002	
	Transformer	All	315-304252-002	
	Remote Fan Switch 3PDT	All	292-057673-001	
	Thermostat SP	All	300-049197-003	
30-45	Contactor (24V) 30A	All	072-303180-001	C, L
	Contactor (24V) 50A	All	072-303180-002	
	Transformer	All	315-304252-002	
	Remote Fan Switch 3PDT	All	292-057673-001	
	Fan Relay	2.6-5kW	072-303180-011	
	Fan Relay	7.5-45kW	072-303180-001	
	Thermostat SP	All	300-049197-003	
31-00	Contactor (24V) 30A	All	072-303180-001	D, M, U
	Contactor (24V) 50A	All	072-303180-002	
31-40	Contactor (24V) 30A	All	072-303180-001	D, M
	Contactor (24V) 50A	All	072-303180-002	
	Thermostat SP	All	300-049197-003	
31-41	Contactor (24V) 30A	All	072-303180-001	E, N
	Contactor (24V) 50A	All	072-303180-002	
	Thermostat SP	All	300-049197-003	
	Fan Switch 3PDT	All	292-057673-001	
31-42	Contactor (24V) 30A	All	072-303180-001	E, N, V
	Contactor (24V) 50A	All	072-303180-002	
	Remote Fan Switch 3PDT	All	292-057673-001	
31-43	Contactor (24V) 30A	All	072-303180-001	F, O, R
	Contactor (24V) 50A	All	072-303180-002	
	Fan Relay	2.6-5kW	072-303180-011	
	Fan Relay	7.5-45kW	072-303180-001	
	Remote Fan Switch 3PDT	All	292-057673-001	
31-44	Contactor (24V) 30A	All	072-303180-001	E, N
	Contactor (24V) 50A	All	072-303180-002	
	Remote Fan Switch 3PDT	All	292-057673-001	
	Thermostat SP	All	300-049197-003	
31-45	Contactor (24V) 30A	All	072-303180-001	F, O
	Contactor (24V) 50A	All	072-303180-002	
	Fan Relay	All	072-303180-001	
	Fan Relay	7.5-45kW	072-303180-011	
	Remote Fan Switch 3PDT	All	292-057673-001	
	Thermostat SP	All	300-049197-003	
32-00	Contactor (120) 30A	All	072-303180-007	A, J, S
	Contactor (120) 50A	All	072-303180-008	
	Transformer	All	315-304252-001	
32-40	Contactor (120) 30A	All	072-303180-007	A, J
	Contactor (120) 50A	All	072-303180-008	
	Transformer	All	315-304252-001	
	Thermostat SP	All	300-049197-003	
32-41	Contactor (120) 30A	All	072-303180-007	B, K
	Contactor (120) 50A	All	072-303180-008	
	Transformer	All	315-304252-001	
	Thermostat SP	All	300-049197-003	
	Fan Switch 3PDT	All	292-057673-001	
32-42	Contactor (120) 30A	All	072-303180-007	B, K
	Contactor (120) 50A	All	072-303180-008	
	Transformer	All	315-304252-001	
	Remote Fan Switch 3PDT	All	292-057673-001	
32-43	Contactor (120) 30A	All	072-303180-007	C, L, T
	Contactor (120) 50A	All	072-303180-008	
	Transformer	All	315-304252-001	
	Fan Relay	2.6-5kW	072-303180-011	
	Fan Relay	7.5-45kW	072-303180-001	
	Remote Fan Switch 3PDT	All	292-057673-001	
32-44	Contactor (120) 30A	All	072-303180-007	B, K
	Contactor (120) 50A	All	072-303180-008	
	Transformer	All	315-304252-001	
	Remote Fan Switch	All	292-057673-001	
	Thermostat SP	All	300-049197-003	

Code	Description	Heater Line Volts	Part No.	Wiring Figure
32-45	Contactor (120) 30A	All	072-303180-007	C, L
	Contactor (120) 50A	All	072-303180-008	
	Transformer	All	315-304252-001	
	Fan Relay	2.6-5kW	072-303180-011	
	Fan Relay	7.5-45kW	072-303180-007	
	Remote Fan Switch 3PDT	All	292-057673-001	
	Thermostat SP	All	300-049197-003	
33-00	Contactor (120) 30A	All	072-303180-007	D, M, U
	Contactor (120) 50A	All	072-303180-008	
33-40	Contactor (120) 30A	All	072-303180-007	D, M
	Contactor (120) 50A	All	072-303180-008	
	Thermostat SP	All	300-049197-003	
33-41	Contactor (120) 30A	All	072-303180-007	E, N
	Contactor (120) 50A	All	072-303180-008	
	Fan Switch 3PDT	All	292-057673-001	
	Thermostat SP	All	300-049197-003	
33-42	Contactor (120) 30A	All	072-303180-007	E, N, V
	Contactor (120) 50A	All	072-303180-007	
	Remote Fan Switch 3PDT	All	292-057673-001	
33-43	Contactor (120) 30A	All	072-303180-007	F, O, R
	Contactor (120) 50A	All	072-303180-008	
	Fan Relay	2.6-5kW	072-303180-011	
	Fan Relay (120V)	7.5-45kW	072-303180-007	
	Remote Fan Switch 3PDT	All	292-057673-001	
33-44	Contactor (120) 30A	All	072-303180-007	E, N
	Contactor (120) 50A	All	072-303180-007	
	Remote Fan Switch 3PDT	All	292-057673-001	
	Thermostat SP	All	300-049197-003	
33-45	Contactor (120) 30A	All	072-303180-007	F, O
	Contactor (120) 50A	All	072-303180-008	
	Fan Relay	2.6-5kW	072-303180-011	
	Fan Relay	7.5-45kW	072-303180-007	
	Remote Fan Switch 3PDT	All	292-057673-001	
	Thermostat SP	All	300-049197-003	
34-00	Contactor (208/240) 30A	208/240	072-303180-013	G, P
	Contactor (208/240) 50A	208/240	072-303180-014	
34-40	Contactor (208/240) 30A	208/240	072-303180-013	G, P
	Contactor (208/240) 50A	208/240	072-303180-014	
	Thermostat SP	208/240	300-049197-003	
34-41	Contactor (208/240) 30A	208/240	072-303180-013	H, Q
	Contactor (208/240) 50A	208/240	072-303180-014	
	Fan Switch 3PDT	208/240	292-057673-001	
	Thermostat SP	208/240	300-049197-003	
34-42	Contactor (208/240) 30A	208/240	072-303180-013	H, Q
	Contactor (208/240) 50A	208/240	072-303180-014	
	Remote Fan Switch 3PDT	208/240	292-057673-001	
34-43	Contactor (208/240) 30A	208/240	072-303180-013	I, R, V
	Contactor (208/240) 50A	208/240	072-303180-014	
	Fan Relay	208/240	072-303180-013	
	Remote Fan Switch 3PDT	208/240	292-057673-001	
34-44	Contactor (208/240) 30A	208/240	072-303180-013	H, Q
	Contactor (208/240) 50A	208/240	072-303180-014	
	Remote Fan Switch 3PDT	208/240	292-057673-001	
	Thermostat SP	208/240	300-049197-003	
34-45	Contactor (208/240) 30A	208/240	072-303180-013	I, R, V
	Contactor (208/240) 50A	208/240	072-303180-014	
	Fan Relay	208/240	072-303180-013	
	Remote Fan Switch 3PDT	208/240	292-057673-001	
	Thermostat SP	208/240	300-049197-003	
35-00	Contactor (277) 30A	277	072-303180-019	G
	Contactor (277) 50A	277	072-303180-020	
35-40	Contactor (277) 30A	277	072-303180-019	G
	Contactor (277) 50A	277	072-303180-020	
	Thermostat SP	277	300-049197-003	
35-41	Contactor (277) 30A	277	072-303180-019	H
	Contactor (277) 50A	277	072-303180-020	
	Fan Switch 3PDT	277	292-057673-001	
	Thermostat SP	277	300-049197-003	
35-42	Contactor (277) 30A	277	072-303180-019	H
	Contactor (277) 50A	277	072-303180-020	
	Remote Fan Switch 3PDT	277	292-057673-001	
35-43	Contactor (277) 30A	277	072-303180-019	I
	Contactor (277) 50A	277	072-303180-020	
	Fan Relay	277	072-303180-019	
	Remote Fan Switch 3PDT	277	292-057673-001	
35-44	Contactor (277) 30A	277	072-303180-019	H
	Contactor (277) 50A	277	072-303180-020	
	Remote Fan Switch 3PDT	277	292-057673-001	
	Thermostat SP	277	300-049197-003	
35-45	Contactor (277) 30A	277	072-303180-019	I
	Contactor (277) 50A	277	072-303180-020	
	Fan Relay	277	072-303180-019	
	Remote Fan Switch 3PDT	277	292-057673-001	
	Thermostat SP	277	300-049197-003	

Note: Number in parentheses () in the Part Number Column indicates the quantity of that part required.

Code	Disconnect Rating	Disconnect Part No.
1	40A	292-303472-001
2	80A	292-303472-002
3	100A	292-303472-003

Miscellaneous Parts	
Thermostat Knob	169-049278-001
Mod. Decal Card	170-303678-001

Instruction Sheets	
1. Internal Thermostat	PF-448
2. Internal/External Summer Fan Switch	PF-480
3. Internal/External Summer Fan Switch with Relay	PF-481
4. Disconnect Switch	PF-482

WIRING DIAGRAMS

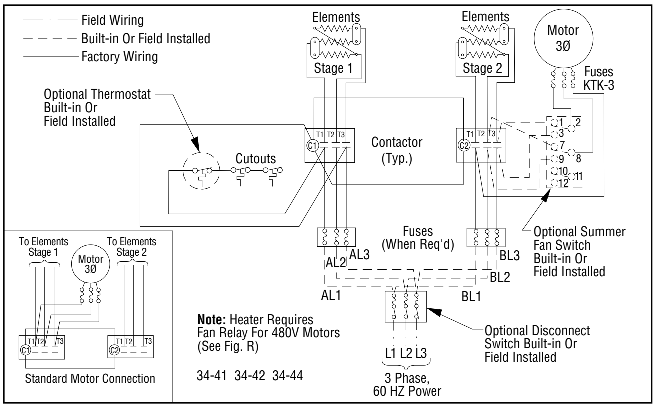


Figure Q

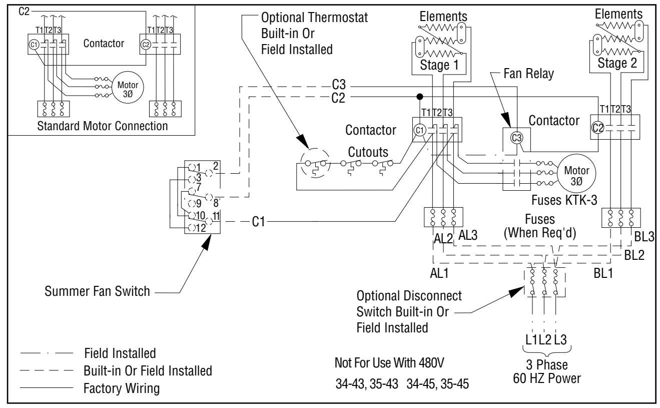
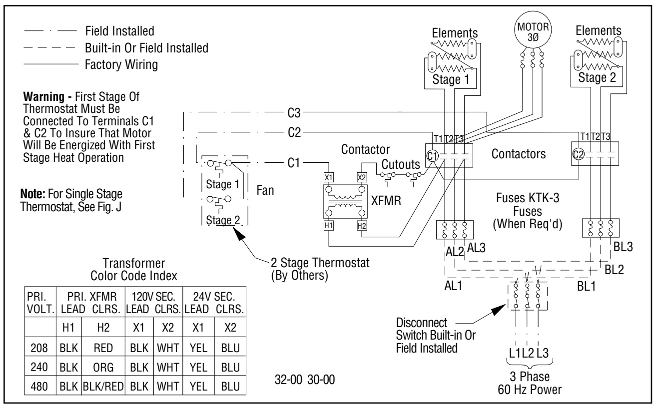
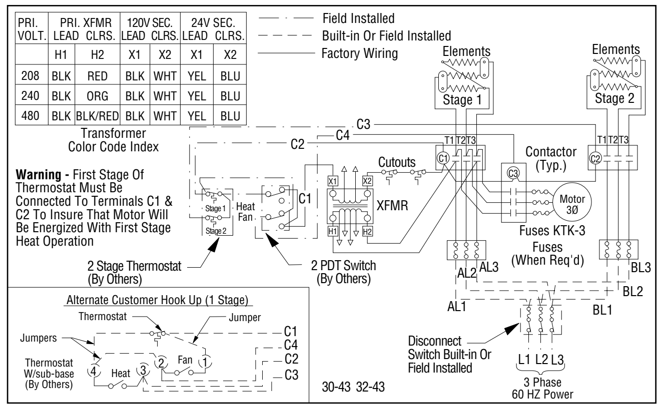


Figure R



PRI. VOLT.	PRI. XFMR LEAD CLRS.		120V SEC. LEAD CLRS.		24V SEC. LEAD CLRS.	
	H1	H2	X1	X2	X1	X2
208	BLK	RED	BLK	WHT	YEL	BLU
240	BLK	ORG	BLK	WHT	YEL	BLU
480	BLK	BLK/RED	BLK	WHT	YEL	BLU

Figure S



PRI. VOLT.	PRI. XFMR LEAD CLRS.		120V SEC. LEAD CLRS.		24V SEC. LEAD CLRS.	
	H1	H2	X1	X2	X1	X2
208	BLK	RED	BLK	WHT	YEL	BLU
240	BLK	ORG	BLK	WHT	YEL	BLU
480	BLK	BLK/RED	BLK	WHT	YEL	BLU

Figure T

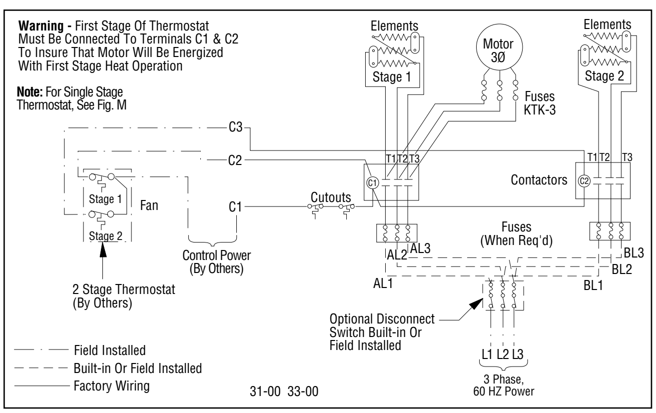


Figure U

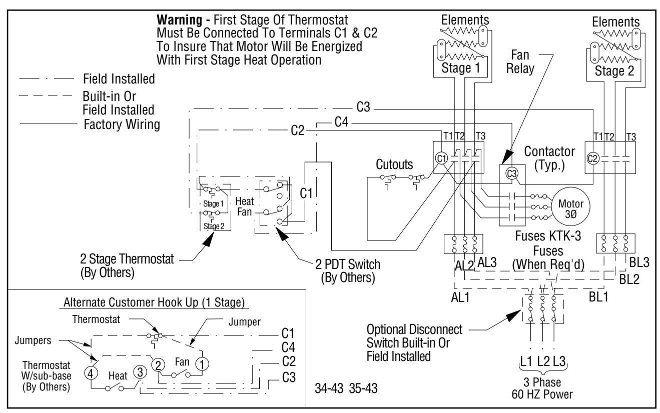


Figure V

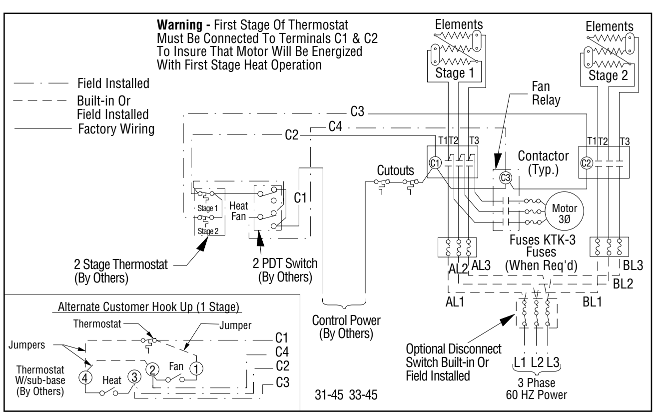
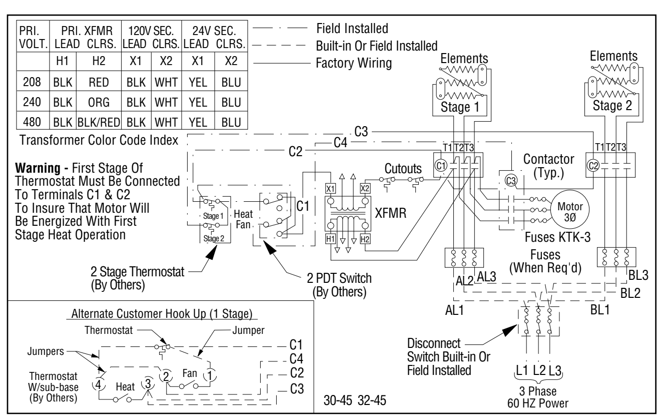


Figure W



PRI. VOLT.	PRI. XFMR LEAD CLRS.		120V SEC. LEAD CLRS.		24V SEC. LEAD CLRS.	
	H1	H2	X1	X2	X1	X2
208	BLK	RED	BLK	WHT	YEL	BLU
240	BLK	ORG	BLK	WHT	YEL	BLU
480	BLK	BLK/RED	BLK	WHT	YEL	BLU

Figure X

Limited Warranty:
Please refer to the Chromalox limited warranty applicable to this product at
http://www.chromalox.com/customer-service/policies/termsofsale.aspx.

Chromalox®
PRECISION HEAT AND CONTROL

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